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Change Number M-16-96-04	Federal Facility Agreement and Consent Order Change Control Form <small>Do not use blue ink. Type or print using black ink.</small>	Date 8/2/96
Originator David E. Olson, DOE-RL		Phone 376-7326
Class of Change <input type="checkbox"/> I - Signatories <input type="checkbox"/> II - Executive Manager <input checked="" type="checkbox"/> III - Project Manager		
Change Title Modification of schedule and monitoring network described in the N-Springs Expedited Response Action Performance Monitoring Plan.		
Description/Justification of Change The Performance Monitoring Plan was developed to support M-16-12D, "Complete construction/installation and initiate operations of N Springs pump and treat facility pursuant to Ecology (N Springs ERA) Action Description Memorandum dated September 23, 1995" contained in TPA Change Control Form M-15-94-04, dated September 29, 1994. The N-Springs Expedited Response Action (ERA) Performance Monitoring Program is being modified to reflect a shift in emphasis from evaluation of the effectiveness of the pump-and-treat system to supporting the ERA. Modifications are presented in Attachment A. The current monitoring program was developed in a Data Quality Objectives workshop attended by DOE-RL and Ecology. The Data Quality Objectives Workshop is summarized in the <i>N-Springs Expedited Response Action Performance Monitoring Plan BHI-00164, Rev. 1</i> . Performance Monitoring has been conducted in accordance with the plan for 11 months. The data were evaluated and presented in <i>N-Springs Expedited Response Action Performance Evaluation Report (DOE/RL-95-110, Rev. 0)</i> . The revised monitoring reduces number of wells where water-level data are being collected and reduces the number of groundwater samples being collected and analyzed. Locations sampled will include monitoring wells and pump-and-treat system Influent and Effluent. The revised monitoring strategy utilizes the extensive water-level and analytical data base to determine an effective sampling location network, and sampling frequency.		
Impact of Change The impact of this change is the streamlining of monitoring activities to address current program needs. Sample collection needs are integrated to the fullest extent possible under a consolidated schedule. The change will result in a cost savings of approximately \$190,000 annually, when fully implemented. No impacts on interim milestones are anticipated.		
Affected Documents BHI, 1995, <i>N-Springs Expedited Response Action Performance Monitoring Plan</i> , BHI-00164, Rev. 1, Bechtel Hanford, Inc. Richland, Washington.		
Approvals DOE <u>David E. Olson</u> 8/2/96 Date <u>8/2/96</u> <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved EPA <u>11/9</u> Date <u>8/2/96</u> <input type="checkbox"/> Approved <input type="checkbox"/> Disapproved Ecology <u>Philip R. L. Smith</u> Date <u>8/2/96</u> <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved		

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ATTACHMENT A

JUSTIFICATION FOR PROPOSED CHANGES TO N-SPRINGS EXPEDITED RESPONSE ACTION PERFORMANCE MONITORING

The purpose of this proposal is to delineate a revised performance monitoring program. The purpose of the original performance monitoring program and groundwater-level monitoring network was to collect data for evaluating the baseline performance of the N-Springs Pump-and-Treat System and its effects on the aquifer, during the startup and initial operation of the system. Samples have been collected from August-September 1995 through the present time on a monthly basis (about 10 months of sample results). The original performance monitoring program was a result of a Data Quality Objectives (DQO) workshop conducted by the Department of Energy, Richland Operations Office (RL) and Washington State Department of Ecology (Ecology). The evaluation of the pump and treat performance monitoring has been completed and is discussed in detail in the N-Springs Expedited Response Action (ERA) Performance Evaluation Report (DOE/RL-95-110, Rev. 0). With the completion of the evaluation stage of performance monitoring for the Pump-and-Treat system, the next phase of monitoring is to support the ERA.

The revised data collection strategy reduces the number of wells where water level monitoring data is being collected and reduces the number of groundwater samples being collected and analyzed. A large data base currently exists which provides a great deal of knowledge of the site and has allowed refinement of the hydrological and hydrochemical models of the site.

Groundwater-Level Monitoring Network Reduction:

A total of twenty-eight wells were monitored for groundwater-level during the evaluation period. The N-Springs Expedited Response Action Performance Evaluation Report (ERA-PER) indicated which monitoring wells in the automated network were directly impacted by operation of the pump-and-treat, and which wells, outside the capture zone, provided baseline or reference data. The purpose of the baseline wells was to help distinguish between changes in the water table caused by pump-and-treat operations and changes caused by fluctuations in the Columbia River stage. The remaining wells provided boundary control and improved resolution for construction of the hydraulic contour maps.

Figure 1 shows the distribution of wells used for the ERA-PER. The figure also identifies which wells are being recommended for continued use in the revised groundwater level monitoring. The primary reasons for deleting a well from the groundwater-level monitoring program are 1) the well is located outside the influence of the pump-and-treat system, 2) the well is not used for baseline referencing, and 3) redundancy in data collection.

Figure 2 shows the hydraulic contours observed when pumping wells N-103A, N-105A and N-106A (DOE/RL-95-110). The figure shows the lateral extent of impact the pump-and-treat system has on the unconfined aquifer. The hydraulic contour map was used to determine which wells were no longer necessary for groundwater-level monitoring. Wells were removed from the

well network based on whether they were outside the capture zone of the extraction wells, not used for baseline referencing, or if there was a redundancy of data collection. Redundancy occurs when wells are located nearby each other and, therefore, monitor the same area. Table 1 presents the proposed disposition of the automated groundwater-level monitoring network and the justification for the disposition.

Performance Monitoring Plan Sampling and Analysis Reduction:

As part of the requirements of the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) and the Action Memorandum, the N-Springs pump-and-treat system was to be evaluated for effectiveness, efficiency and ability to meet the ERA goals. The N-Springs ERA-PER shows that the pump-and-treat system is meeting those ERA goals.

Data collection efforts associated with the ERA-PER has allowed additional refinement to the hydrochemical conceptualization of the groundwater flow and contaminant transport system found at N-Springs. Table 2 shows the analytical results for the monitoring and extraction wells associated with the N-Springs pump-and-treat system. The attached trend plots show results of analyses measured from the performance monitoring wells. There are basically three phases to the data: 1) pre-startup and just after startup of operation; 2) normal river stage for the season and; 3) during abnormally high river stage. The constituents Ca, Mg, SO₄ and Total Petroleum Hydrocarbons (TPH) are consistent between the three phases. The ⁹⁰Sr values for the extraction wells were initially at a high level during the pre-startup phase then stabilize during the normal river stage phase, then increased during the high river stage. The changes in values of ⁹⁰Sr fit with the conceptual model of ⁹⁰Sr in the subsurface (⁹⁰Sr on the soil in the unsaturated zone desorbs when that zone is wetted). Wells N-46 and N-99A that are located close to the river and detect ⁹⁰Sr, have fluctuating concentrations that may be related to short term changes in river stage. This understanding of supports our ability to predict hydrochemical changes in the system.

Table 3 shows the recommended sampling frequency for the various sampling locations. Process samples would still be collected as needed to verify system operations. The sampling frequencies on all monthly well samples would change to a semiannual frequency, except for the following wells:

- 199-N-3 which will be kept a monthly frequency to detect any changes in constituents that may effect the pump-and-treat system,
- 199-N-2, 199-N-46, 199-N-67, 199-N-76, and 199-N-99A, these wells have increased concentrations of ⁹⁰Sr because of high river stage.

The monthly sampling for wells 199-N-2, 199-N-46, 199-N-67, 199-N-76, and 199-N-99A is to track the ⁹⁰Sr concentrations during the abnormally high river stage observed in the summer of 1996. When the river stage drops and concentrations return to levels that existed prior to the high river stage, it is planned that these wells be put on a semi-annual sampling frequency. The semiannual samples would be collected during the predicted seasonal high and low river stage.

Because of the dynamic nature of the aquifer/river system, there may be future changes which the project would want to monitor. In order to trigger changes in the sampling frequency, elements of the program will be monitored on a more frequent basis. Groundwater at a well, composite groundwater at the system influent, and river stage are monitored to indicate changes in the system. Well 199-N-3, system influent and river stage are monitored on a monthly, weekly, and daily basis respectively, which will allow quick responses in sampling changes to occur, if necessary.

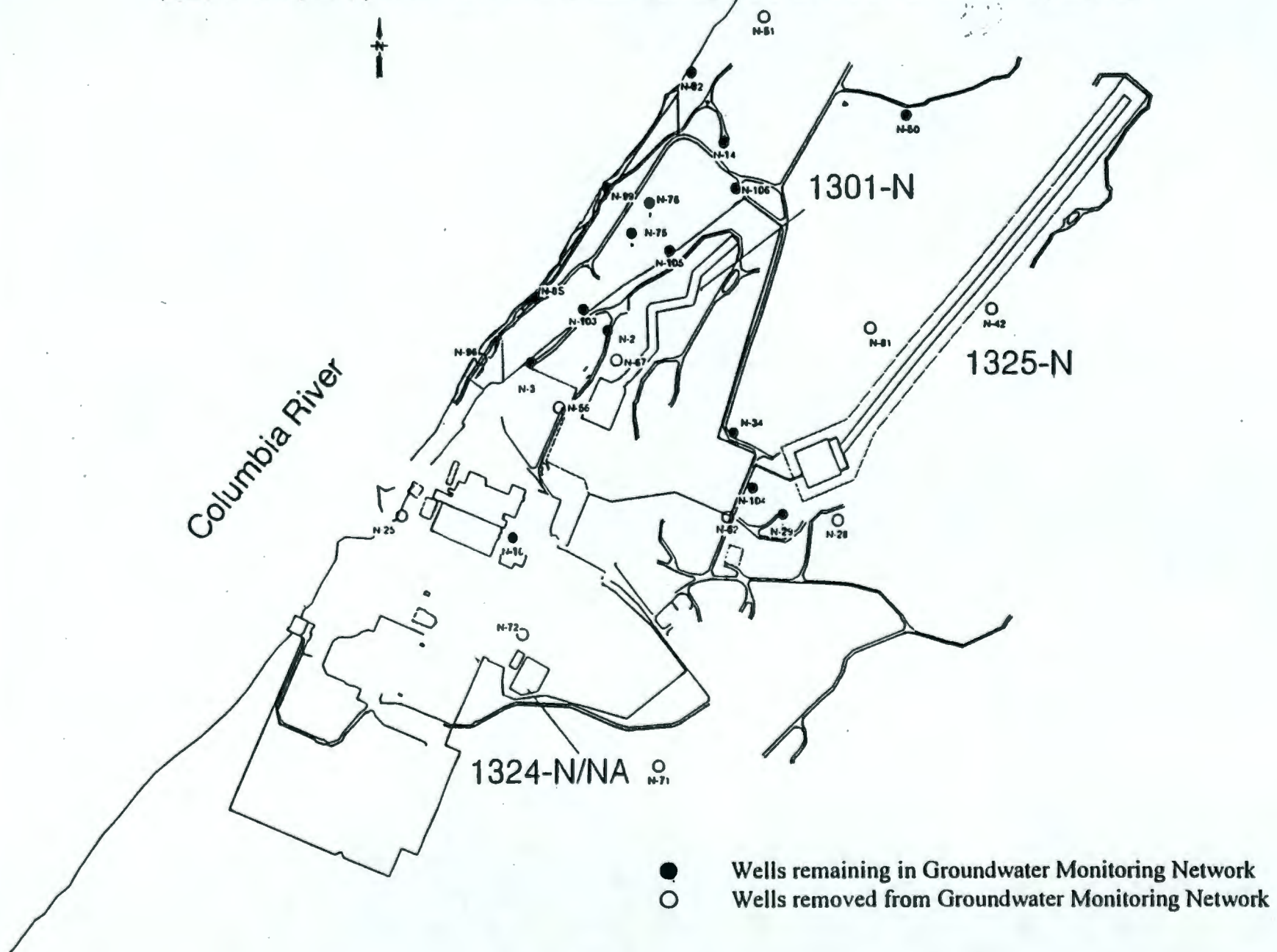
Operational Requirements:

In order to ensure achievement of the ERA goals, the Action Memorandum specifies the following performance criteria for the pump-and-treat system:

The pump-and-treat system will be designed and operated with the goal of meeting Environmental Protection Agency's (EPA) current draft ^{90}Sr drinking water standard of 42 pCi/L. The actual discharge concentrations will be dependent on the concentration of ^{90}Sr in the extracted groundwater. EPA and Ecology believe a 90% reduction in ^{90}Sr concentration from the extracted groundwater is appropriate as a minimum requirement. System effectiveness will be verified, and will include monthly samples collected from one monitoring well located at each end of the wall and two monitoring wells located between the wall and the river. Effluent discharge from the treatment system will be verified by the collection of influent and effluent samples at least monthly.

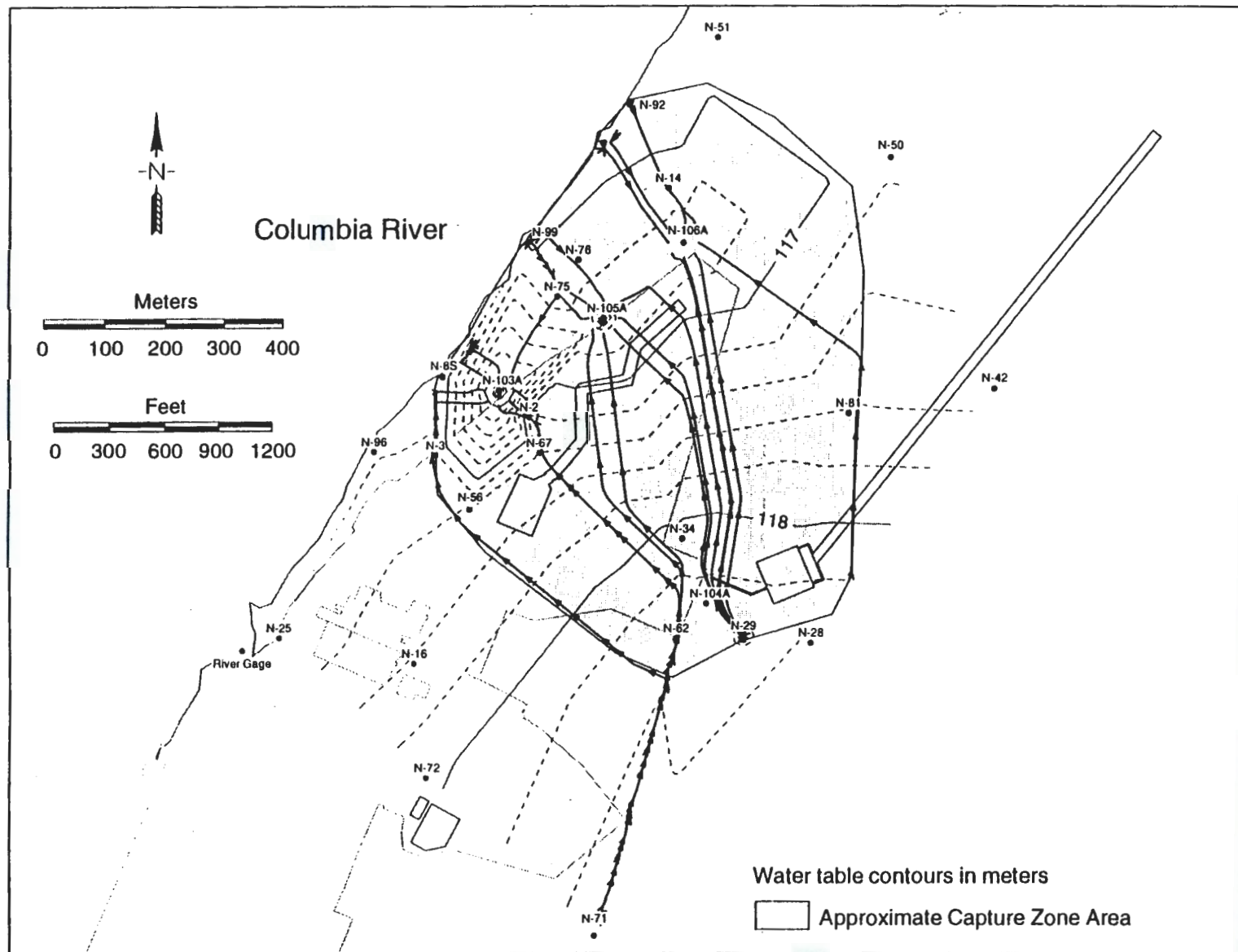
The existing N-Springs pump-and-treat system is meeting the above requirements. The revised performance monitoring streamlines the monitoring program, meets the needs of the ongoing pump-and-treat system, and reduces cost.

Figure 1
GROUNDWATER LEVEL MONITORING NETWORK



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Figure 2



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Table 1

WATER LEVEL MONITORING REDUCTION PLAN

Well ID	Disposition of Well		Justification for Disposition
N River Gauge	Maintain		Monitors river stage elevation
N-2	Maintain		Closest observation well to N-103A
N-3	Maintain		Monitors southernmost extent of capture zone from Well N-103A
N-8S	Maintain		Monitors near river water table elevation between the river and Well N-103
N-14	Maintain		Closest observation well to N-106A
N-16	Maintain		Baseline reference for Well N-02
N-25		Remove	Outside capture zone
N-28		Remove	Outside capture zone, water table being monitored in N-29
N-34	Maintain		Down-gradient observation well for N-29
N-42		Remove	Outside capture zone
N-50	Maintain		Baseline reference for Wells N-76 & N-14
N-51		Remove	Outside capture zone
N-56		Remove	Water table monitored by N-3
N-62		Remove	Water table monitored by N-29
N-67		Remove	Water table monitored by N-2 and N-3

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Table 1

Well ID	Disposition of Well		Justification for Disposition
N-71		Remove	Outside capture zone
N-72		Remove	Outside capture zone
N-76	Maintain		Closest observation well to N-75
N-81		Remove	On boundary of capture zone, not needed
N-92A	Maintain		Monitors near river water table elevation between the river and Well N-106A
N-96A		Remove	Outside capture zone, water table monitored by N-3 and N-8S
N-99A	Maintain		Monitors near river water table elevation between the river and Well N-75
N-75 *	Maintain		Pump & Treat monitoring system
N-103A *	Maintain		Pump & Treat monitoring system
N-105A *	Maintain		Pump & Treat monitoring system
N-106A *	Maintain		Pump & Treat monitoring system
N-29 *	Maintain		Pump & Treat monitoring system
N-104A *	Maintain		Pump & Treat monitoring system
Total	17	11	

* Not part of original Water Level Monitoring, although water level data is available from these wells.

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TABLE 2

Analytical Results

N Springs Performance Monitoring
Analytical Results for Monitoring and Extraction Wells

Sample Location	Sample No.	Date Sampled	Strontium-90 (pCi/L)	Calcium (ug/L)	Magnesium (ug/L)	Sulfate (mg/L)	Total Petroleum Hydrocarbons (mg/L)	pH Measurement (pH)	Temperature (Deg C)	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Eh (mV)	COMMENTS
199-N-2	B0GB53	8/8/95	160	35.9	7.17	20.8	-	-	-	-	-	-	-	
	B0GFS7	9/8/95	126	38.5	8	22.5	-	-	-	-	-	-	-	>No field readings taken possibility of contaminating equipment
	B0GYT2	12/13/95	-	31.1	6.05	20.8	-	-	-	-	-	-	-	
	B0GYT1	12/13/95	72	-	-	-	-	-	-	-	-	-	-	
	B0GZF8	1/8/96	-	35.1	6.68	18.2	-	8.32	16.7	214	9.1	1.3	-	
	B0GZF7	1/8/96	187	-	-	-	-	8.32	16.7	214	9.1	1.3	-	
	B0H6H3	3/8/96	2,220	-	-	-	-	7.96	20.2	226	5	0.64	141.6	
	B0H6H4	3/8/96	-	34.6	5.88	15.3	-	7.96	20.2	226	5	0.64	141.6	
	B0H8M2	3/25/96	-	36.9	6.14	16.5	-	7.98	20.6	241	9.9	0.34	-184.7	
	B0H8M1	3/25/96	2,200	-	-	-	-	7.98	20.6	241	9.9	0.34	-184.7	
	B0HDV2	5/9/96	2,810	-	-	-	-	6.79	19.2	260	8.2	1.31	170.8	
	B0HDV3	5/9/96	-	35.90	5.89	17.4	-	6.79	19.2	260	8.2	1.31	170.8	
	B0HG65	6/6/96	2,820	-	-	-	-	7.97	21.7	212	9.2	1.23	-34.5	
	B0HG66	6/6/96	-	37.40	6.15	16.9	-	7.97	21.7	212	9.2	1.23	-34.5	
199-N-3	B0GB68	8/1/95	0.0118 U	1.82 B	.318 B	0.50 U	0.49 U	-	-	-	-	-	-	>Full Trip Blank
	B0GB69	8/1/95	-0.0264 U	1.68 B	.0282 U	.50 U	0.49 U	-	-	-	-	-	-	
	B0GB54	8/8/95	1,020	141	25	198	2.37	-	-	-	-	-	-	
	B0GB70	8/8/95	1,040	139	24.4	206	2.31 U	-	-	-	-	-	-	>Duplicate sample of B0GB54
	B0GB71	8/8/95	970	150	26	130 D	1 U	-	-	-	-	-	-	>Split sample of B0GB54
	B0GFV1	9/15/95	0.11	1.76 B	0.43 B	0.5 U	0.48 U	-	-	-	-	-	-	>Equipment blank
	B0GFS8	9/15/95	914	165	29.2	144	0.48 U	7.40	22.3	108.3	-	4.67	328.5	
	B0GYT3	12/13/95	642	-	-	-	-	-	-	-	-	-	-	
	B0GYT4	12/13/95	-	160	29	229	-	-	-	-	-	-	-	
	B0GZG0	1/8/96	-	181	31.2	225	-	7.64	14.6	885	4.2	8	107.4	
	B0GZF9	1/8/96	803	134	24.4	208	0.5 U	7.64	14.6	885	4.2	8	107.4	
	B0H6H6	3/8/96	-	139	25.7	166	0.9	7.61	18.4	895	3.06	23.6	141.6	
	B0H6H5	3/8/96	1,060	-	-	-	-	7.61	18.4	895	3.06	23.6	141.6	
	B0H8M3	3/25/96	1,050	-	-	-	-	-	-	-	-	-	-	
	B0H8M4	3/25/96	-	149	26	188	0	-	-	-	-	-	-	
	B0HDV4	5/9/96	1,010					6.53	18.2	836	6.8	18.5	130.5	
	B0HDV5	5/9/96	-	152	26.8	208	0	6.53	18.2	836	6.8	18.5	130.5	
	B0HG67	6/6/96	1,180	-	-	-	-	7.65	21.7	826	6.4	4.46	-38.4	
	B0HG68	6/6/96	-	162	28.5	182	0	7.65	21.7	826	6.4	4.46	-38.4	

N Springs Performance Monitoring
Analytical Results for Monitoring and Extraction Wells

Sample Location	Sample No.	Date Sampled	Strontium-90 (pCi/L)	Calcium (ug/L)	Magnesium (ug/L)	Sulfate (mg/L)	Total Petroleum Hydrocarbons (mg/L)	pH Measurement (pH)	Temperature (Deg C)	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Eh (mV)	COMMENTS
199-N-14	B0GB55	8/4/95	502	27.5	4.71 B	18.3	-	8.77	21.4	173	-	-	255.2	
	B0GFS9	9/6/95	791	29.50	5.16	19.5	-	8.70	19.7	198	2.73	0.77	218	
	B0GP18	10/2/95	-	26.60	4.8	-	-	9.17	17.0	214	6.1	0.59	396.4	>Field Screening by Rick McCain
	B0GNZ9	10/2/95	760	-	-	-	-	9.17	17.0	214	6.1	0.59	396.4	
	B0GRP1	11/2/95	773	-	-	-	-	9.03	17.2	214	5.2	-	111.4	
	B0GRP2	11/2/95	-	28.70	4.25	19.3	-	9.03	17.2	214	5.2	-	111.4	
	B0GYT5	12/5/95	666	-	-	-	-	8.13	17.0	250	6.2	0.82	157.1	
	B0GYT6	12/5/95	-	31.70	5.24	18.7	-	8.13	17.0	250	6.2	0.82	157.1	
	B0GZG1	1/3/96	607	-	-	-	-	8.46	18.0	212	6.7	0.87	138.2	
	B0GZG2	1/3/96	-	29.8	4.99	17	-	8.46	18.0	212	6.7	0.87	138.2	
	B0H6H7	2/14/96	621	-	-	-	-	8.46	15.6	211	6.2	0.74	223.6	
	B0H6H8	2/14/96	-	28.3	4.79	16.5	-	8.46	15.6	211	6.2	0.74	223.6	
	B0H766	3/4/96	-	27.9	4.84	16	-	7.76	17.6	197	8.3	1	114.1	
	B0H765	3/4/96	599	-	-	-	-	7.76	17.6	197	8.3	1	114.1	
	B0H8M7	4/4/96	858	-	-	-	-	8.26	19.3	287	6.8	0.41	-173.7	
	B0H8M8	4/4/96	-	38.6	6.44	46.2	-	8.26	19.3	287	6.8	0.41	-173.7	
	B0HDV8	5/7/96	591					8.30	18.6	351	7.2	1.03	168.6	
	B0HDV9	5/7/96	-	29.1	4.96	25.8	-	8.30	18.6	351	7.2	1.03	168.6	
	B0HG97	6/4/96	711	-	-	-	-	-	-	-	-	-	-	>Split of sample B0HG69
	B0HG69	6/4/96	610	-	-	-	-	-	-	-	-	-	-	
	B0HG70	6/4/96	-	32.8	5.8	28.2	-	8.30	18.6	351	7.2	1.03	168.6	
199-N-31	B0GB57	8/1/95	39.5	-	-	-	-	8.50	18.5	238	-	-	272.2	
	B0GFT0	9/11/95	41.9	-	-	-	-	8.26	18.9	285	11.5	1.63	269	
	B0GP00	10/2/95	38.2	-	-	-	-	7.95	18.0	295	5	1.11	404.3	
	B0GRP3	11/2/95	41.2	-	-	-	-	8.41	17.6	325	9	-	111.6	
	B0GYT7	12/5/95	37.2	-	-	-	-	8.23	17.3	295	8.4	0.91	182.9	
	B0GYX3	12/5/95	44.3	-	-	-	-	8.23	17.3	295	8.4	0.91	182.9	>Split samole of B0GYT7
	B0GZG3	1/3/96	43.6	-	-	-	-	8.23	17.3	323	8	1.07	141.6	
	B0H6H9	2/14/96	46.8	-	-	-	-	7.98	17.4	321	7.6	0.69	243.6	
	B0H767	3/4/96	43.2	-	-	-	-	7.13	16.7	296	8.8	0.48	74.1	
	B0H8M9	4/4/96	42.1	-	-	-	-	7.89	18.9	278	8.5	0.41	-143.1	
	B0HDW0	5/7/96	40.0	-	-	-	-	7.99	17.3	345	7.2	0.8	200.1	
	B0HG71	6/4/96	40.8	-	-	-	-	-	-	-	-	-	-	

N Springs Performance Monitoring
Analytical Results for Monitoring and Extraction Wells

Sample Location	Sample No.	Date Sampled	Strontium-90 (pCi/L)	Calcium (ug/L)	Magnesium (ug/L)	Sulfate (mg/L)	Total Petroleum Hydrocarbons (mg/L)	pH Measurement (pH)	Temperature (Deg C)	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Eh (mV)	COMMENTS
199-N-46	B0GB58	8/11/95	5,090	-	-	-	-	7.75	16.7	478	-	-	331.2	
	B0GFT1	9/13/95	5,850	-	-	-	-	-	-	-	-	-	-	>Well purged dry after 5 min., sampled on recovery
	B0GP01	10/3/95	6,180	-	-	-	-	7.39	16.1	360	6	9.01	394.5	
	B0GRP5	11/3/95	3,390	-	-	-	-	7.62	14.6	308	5.2	-	111.3	
	B0GYT8	12/6/95	2,680	-	-	-	-	7.96	12.0	306	8	2.87	231.3	
	B0GZG4	1/5/96	4,210	-	-	-	-	8.11	11.5	175	8.8	2.01	94.6	
	B0H6J0	2/16/96	3,080	-	-	-	-	8.01	8.3	169	11	4.56	254.4	
	B0H768	3/4/96	4,050	-	-	-	-	6.51	17.5	225	14	2.11	74.4	
	B0H8N0	4/5/96	5,820	-	-	-	-	7.78	13.9	239	10	1.05	559	
	B0HDW1	5/10/96	4,510	-	-	-	-	7.92	11.5	223	10.1	1.83	-1370.5	
199-N-67	B0HG72	6/7/96	3,670	-	-	-	-	7.71	15.0	265	8	1.53	-70.4	
	B0GHEX6	9/7/95	6,390	70.2	11.8	24.1	-	7.74	20.2	478	-	-	331.2	
	B0GFT2	9/15/95	9,180	59.4	10.5	20	-	8.31	24.2	475	5.6	1.54	-	
	B0GYV0	12/13/95	-	65.4	12	18.4	-	-	-	-	-	-	-	
	B0GYT9	12/13/95	7,350	-	-	-	-	-	-	-	-	-	-	
	B0GZG6	1/8/96	-	76.4	13.2	18	-	8.20	16.1	576	8.8	1.01	105.4	
	B0GZG5	1/8/96	11,700	-	-	-	-	8.20	16.1	576	8.8	1.01	105.4	
	B0H6J2	3/8/96	-	47.8	7.83	24.9	-	8.06	18.3	329	5.21	0.36	136.6	
	B0H6J1	3/8/96	13,100	-	-	-	-	8.06	18.3	329	5.21	0.36	136.6	
	B0H8M5	3/25/96	13,800	-	-	-	-	-	-	-	-	-	-	
	B0HDV6	5/9/96	13,800	-	-	-	-	6.59	18.5	295	8.8	0.78	124.4	
	B0HDV7	5/9/96	-	47.5	7.87	28.1	-	6.59	18.5	295	8.8	0.78	124.4	
	B0HD73	6/6/96	14,300	-	-	-	-	8.16	20.1	275	9.1	1.14	111.3	
	B0HG74	6/6/96	-	49.9	7.77	26.1	-	8.16	20.1	275	9.1	1.14	111.3	
199-N-75	B0GB60	7/20/95	1,350	30.2	5.13	25.9	-	-	-	-	-	-	-	
	B0GFT3	9/12/95	621	29.2	5	10.1	-	-	-	-	-	-	-	>Field readings not taken
	B0GP03	10/4/95	462	29.8	5.2	16.4	-	8.34	22.6	192	1.4	0.52	259.3	>Offsite lab analysis of ions
	B0GP20	10/4/95	-	28.0	3.9	19	-	8.34	22.6	192	1.4	0.52	259.3	>Field analysis of ions by Rick McCain
	B0GYW5	12/4/95	547	-	-	-	-	8.09	16.1	458	6.6	0.81	238.9	>Duplicate sample of BOGYV1
	B0GYV1	12/4/95	593	-	-	-	-	8.11	16.9	400	6.6	0.86	238.3	
	B0GYW6	12/4/95	-	29.3	5.14	16.6	-	8.09	16.1	458	6.6	0.81	238.9	>Duplicate sample of BOGYV2
	B0GYV2	12/4/95	-	29.9	5.28	16.5	-	8.11	16.9	400	6.6	0.86	238.3	
	B0GZG7	1/4/96	496	-	-	-	-	8.08	14.4	196	7.5	0.29	166.1	
	B0GZG8	1/4/96	-	28.2	4.7	17.2	-	8.08	14.4	196	7.5	0.29	166.1	

N Springs Performance Monitoring
Analytical Results for Monitoring and Extraction Wells

Sample Location	Sample No.	Date Sampled	Strontium-90 (pCi/L)	Calcium (ug/L)	Magnesium (ug/L)	Sulfate (mg/L)	Total Petroleum Hydrocarbons (mg/L)	pH Measurement (pH)	Temperature (Deg C)	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Eh (mV)	COMMENTS
199-N-75 (Cont'd)	B0H6J4	2/13/96	-	28.9	4.94	15.8	-	7.70	14.0	197	9.8	0.67	203.6	
	B0H6J3	2/13/96	470	-	-	-	-	7.70	14.0	197	9.8	0.67	203.6	
	B0H770	3/6/96	-	29.7	5.05	18.4	-	7.81	18.9	183	6	0.38	114.6	
	B0H769	3/6/96	604	-	-	-	-	7.81	18.9	183	6	0.38	114.6	
	B0H8M6	3/25/96	-	50.9	8.19	22.2	-	-	-	-	-	-	-	
	B0H8N1	4/2/96	463	-	-	-	-	8.23	19.4	196	6.4	1.1	750.1	
	B0H8N2	4/2/96	-	28.7	4.92	15.6	-	8.23	19.4	196	6.4	1.1	750.1	
	B0HDW2	5/6/96	649	-	-	-	-	8.26	19.2	213	8.7	2	436.2	
	B0HDW3	5/6/96	-	30.7	5.08	17.9	-	8.26	19.2	213	8.7	2	436.2	
	B0HG75	6/3/96	1,070	-	-	-	-	7.94	22.2	411	6.8	1.03	175	
	B0HG76	6/3/96	-	36.6	6.16	21	-	7.94	22.2	411	6.8	1.03	175	
199-N-76	B0GB61	8/2/95	154	26.1	4.5 B	12.7	-	8.11	20.7	185	-	-	256.2	
	B0GFT4	9/6/95	82	27.8	5.03	13	-	8.10	21.1	185	5.1	0.62	265	
	B0GP21	10/2/95	-	27.8	4.1	15	-	8.01	18.1	295	6.1	0.81	400.1	>Field screening by Rick McCain
	B0GP04	10/2/95	75	-	-	-	-	8.01	18.1	295	6.1	0.81	400.1	
	B0GRR7	11/2/95	0.07	1.87 B	0.35 B	0.5 U	0.5 U	-	-	-	-	-	-	>Equipment blank taken with well 199-N-76.
	B0GRR8	11/2/95	-	0.02 U	0.02 U	0.01 U	10.0 U	-	-	-	-	-	-	>Equipment blank taken with well 199-N-76.
	B0GRQ1	11/2/95	81	-	-	-	-	8.33	19.2	230	6.2	-	128.4	
	B0GRQ2	11/2/95	-	27.6	4.43	12.4	-	8.33	19.2	230	6.2	-	128.4	
	B0GYV3	12/5/95	85	28.9	5.19	12	-	8.19	18.4	182	5.1	0.88	138.2	
	B0GYV4	12/5/95	-	28.5	4.9	12	-	8.19	18.4	182	5.1	0.88	138.2	
	B0GZJ3	1/4/96	-0.02 U	1.84 B	0.24 B	0.5 U	-	-	-	-	-	-	-	>Equipment blank taken with Well 199-N-76
	B0GZJ4	1/4/96	-	0.17 U	0.02 U	0.01 U	-	-	-	-	-	-	-	>Equipment blank taken with Well 199-N-76
	B0GZG9	1/4/96	142	27.9	4.79 B	12.1	-	8.27	16.4	181	6.2	0.61	170.1	
	B0GZJ2	1/4/96	-	27.8	4.25	12.5	-	8.27	16.4	181	6.2	0.61	170.1	>Duplicate sample of B0GZJ10
	B0GZJ1	1/4/96	161	27.1	4.63 B	12.2	-	8.27	16.4	181	6.2	0.61	170.1	>Duplicate sample of B0GZG9
	B0GZH0	1/4/96	-	29.0	4.41	12.8	-	8.27	16.4	181	6.2	0.61	170.1	
	B0H6K9	2/14/96	0.07	2.03 B	0.43 B	0.0 U	-	-	-	-	-	-	-	>Equipment Blank taken with well 199-N-76
	B0H6L0	2/14/96	-	0.17 U	0.02 U	0.01 U	-	-	-	-	-	-	-	>Equipment Blank taken with well 199-N-76
	B0H6K8	2/14/96	-	27.8	4.56	13.5	-	8.26	17.9	208	5.8	0.56	508.4	>Duplicate of B0H6J6

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Sample Location	Sample No.	Date Sampled	Strontium-90 (pCi/L)	Calcium (ug/L)	Magnesium (ug/L)	Sulfate (mg/L)	Total Petroleum Hydrocarbons (mg/L)	pH Measurement (pH)	Temperature (Deg C)	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Eh (mV)	COMMENTS
199-N-76 (Cont)	B0H6K7	2/14/96	250	29.2	5.11	0.01	-	8.26	17.9	208	5.8	0.56	508.4	>Duplicate of B0H6J5
	B0H6J5	2/14/96	246	30.1	5.28	0.01	-	8.26	17.9	208	5.8	0.56	508.4	
	B0H6J6	2/14/96	-	28.1	4.69	13.7	-	8.26	17.9	208	5.8	0.56	508.4	
	B0H786	3/5/96	-	0.17 U	0.02 U	0.01 U	-	-	-	-	-	-	-	>Equipment Blank taken with well 199-N-76
	B0H785	3/5/96	0.17	-	-	-	-	-	-	-	-	-	-	>Equipment Blank taken with well 199-N-76
	B0H771	3/5/96	2,440	45.0	7.66	54.9	-	8.57	19.3	293	5.7	0.43	113.4	
	B0H791	3/5/96	2,820	-	-	-	-	8.57	19.3	293	5.7	0.43	113.4	>Split of sample B0H771
	B0H784	3/5/96	-	43.4	7.24	55.1	-	8.57	19.3	293	5.7	0.43	113.4	>Duplicate of B0H772
	B0H772	3/5/96	-	43.1	7.16	53.4	-	8.57	19.3	293	5.7	0.43	113.4	
	B0H783	3/5/96	3,560	-	-	-	-	8.57	19.3	293	5.7	0.43	113.4	>Duplicate of B0H771
	B0H8P3	4/4/96	0.15	-	-	-	-	-	-	-	-	-	-	>Equipment Blank taken with well 199-N-76
	B0H8P4	4/4/96	-	0.17 U	0.02 U	0.01 U	-	-	-	-	-	-	-	>Equipment Blank taken with well 199-N-76
	B0H8N3	4/4/96	1,460	-	-	-	-	8.15	19.5	232	7	0.83	138.7	
	B0H8N4	4/4/96	-	35.4	5.76	30	-	8.15	19.5	232	7	0.83	138.7	
	B0HDX4	5/7/96	1,340	32.1	5.6400003	27.3	-	8.20	19.1	251	6	2.09	198.9	
	B0HDX5	5/7/96	-	32.2	5.43	26.9	-	8.20	19.1	251	6	2.09	198.9	
	B0HDX6	5/7/96	1,310	32.6	5.7200003	30.5	-	8.20	19.1	251	6	2.09	198.9	
	B0HDX7	5/7/96	-	32.5	5.5	27.1	-	8.20	19.1	251	6	2.09	198.9	
	B0HDX8	5/7/96	0.0092	1.5	0.295	0.5	-	-	-	-	-	-	-	
	B0HDX9	5/7/96	-	0.5	0.066	0.039	-	-	-	-	-	-	-	
	B0HG77	6/5/96	1,540	-	-	-	-	8.13	20.4	238	7.1	0.77	81.5	
	B0HG78	6/5/96	-	37.5	6.57	27.6	-	8.13	20.4	238	7.1	0.77	81.5	
	B0HG95	6/5/96	0.200	-	-	-	-	-	-	-	-	-	-	>Equipment Blank taken with B0HIG77
	B0HG96	6/5/96	-	0.51 U	0.07 U	0.04 U	-	-	-	-	-	-	-	>Equipment Blank taken with B0HIG78

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Sample Location	Sample No.	Date Sampled	Strontium-90 (pCi/L)	Calcium (ug/L)	Magnesium (ug/L)	Sulfate (mg/L)	Total Petroleum Hydrocarbons (mg/L)	pH Measurement (pH)	Temperature (Deg C)	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Ek (mV)	COMMENTS
199-N-92A	B0GB62	8/3/95	0.59	-	-	-	-	7.64	17.9	285	-	-	168.2	
	B0GFT5	9/13/95	0.52	-	-	-	-	8.15	18.9	187	6.11	3.28	247	
	B0GP05	10/5/95	0.55	-	-	-	-	8.19	18.8	191	1.7	3.32	337.1	
	B0GRQ3	11/3/95	2.12	-	-	-	-	5.28	15.0	222	5.1	-	375.2	
	B0GYV5	12/6/95	1.02	-	-	-	-	8.08	18.2	174	6.4	-	-43.4	
	B0H6J7	2/16/96	0.21	-	-	-	-	7.97	12.4	287	8.6	2.16	124.2	
	B0H773	3/7/96	0.33	-	-	-	-	7.57	10.3	480	10.71	2.03	126.2	
	B0HCH2	4/5/96	0.05	-	-	-	-	7.75	14.1	402	10	1.44	604.1	Split of B0H8N5
	B0H8N5	4/5/96	0.36	-	-	-	-	7.75	14.1	402	10	1.44	604.1	
	B0HDW6	5/8/96	0.24	-	-	-	-	7.04	12.3	228	10.2	4.42	104.9	
	B0HG79	6/5/96	0.05	-	-	-	-	7.63	12.6	200	11.4	3.84	-15.4	
199-N-96A	B0GB63	8/2/95	7.63	-	-	-	0.52 U	6.84	17.9	342	-	-	186.1	
	B0GFT6	9/6/95	5.28	-	-	-	0.48 U	7.05	18.7	1032	5.6	5	282	
	B0GP22	10/3/95	-	-	-	-	-	7.36	19.2	760	6	3.21	391.3	>Field screening by Rick McCain
	B0GP06	10/3/95	4.72	-	-	-	-	7.36	19.2	760	6	3.21	391.3	
	B0GRQ5	11/3/95	4.17	-	-	-	-	7.58	18.4	329	5.4	-	113.6	
	B0GRQ6	11/3/95	-	172.00	28.6	255	-	7.58	18.4	329	5.4	-	113.6	
	B0GYV6	12/6/95	37.9	-	-	-	-	7.05	16.9	235	7.4	2.79	169.4	
	B0GYV7	12/6/95	-	-	-	-	-	7.05	16.9	235	7.4	2.79	169.4	
	B0GZH2	1/5/96	6.43	-	-	-	-	7.28	12.4	239	5.2	46.1	114.1	
	B0GZH3	1/5/96	-	-	-	-	-	7.28	12.4	239	5.2	46.1	114.1	
	B0H6J8	2/16/96	3.20	-	-	-	-	7.43	7.5	186	9.4	4.63	174.5	
	B0H6J9	2/16/96	-	-	-	-	0	7.43	7.5	186	9.4	4.63	174.5	
	B0H775	3/7/96	-	-	-	-	0.6	7.54	7.5	181	11.62	3.58	117.6	
	B0H774	3/7/96	4.60	-	-	-	-	7.54	7.5	181	11.62	3.58	117.6	
	B0H8N7	4/5/96	-	-	-	-	0.3	7.47	16.0	303	10	9.92	586.5	
	B0H8N6	4/5/96	5.58	-	-	-	-	7.47	16.0	303	10	9.92	586.5	
	B0HDW7	5/8/96	2.43	-	-	-	-	7.46	14.5	188	10	3.56	82.6	
	B0HDW8	5/8/96	-	-	-	-	0	7.46	14.5	188	10	3.56	82.6	
	B0HDY4	5/8/96	2.70	-	-	-	-	7.46	14.5	188	10	3.56	82.6	
	B0HG80	6/5/96	5.60	-	-	-	-	7.61	26.2	161	9.7	22.1	98.7	
	B0HG81	6/5/96	-	-	-	-	-	7.61	26.2	161	9.7	22.1	98.7	

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Sample Location	Sample No.	Date Sampled	Strontium-90 (pCi/L)	Calcium (ug/L)	Magnesium (ug/L)	Sulfate (mg/L)	Total Petroleum Hydrocarbons (mg/L)	pH Measurement (pH)	Temperature (Deg C)	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Eh (mV)	COMMENTS
199-N-99A	B0GB64	8/3/95	5,510	-	-	-	-	7.32	19.4	440	-	-	138.3	
	B0GFT7	9/8/95	1,360	-	-	-	-	7.68	19.3	221	7.15	5	172	
	B0GP07	10/5/95	1,360	-	-	-	-	7.84	19.2	295	1.5	4.95	319.2	
	B0GRQ7	11/3/95	2,890	-	-	-	-	8.71	15.1	509	5.2	-	475.3	
	B0GRS3	11/3/95	3,000	-	-	-	-	8.71	15.1	509	5.2	-	475.3	>Split sample of B0GRQ7
	B0GYV8	12/6/95	3,250	-	-	-	-	7.44	16.7	505	8.9	12.5	126	
	B0GZJ9	1/5/96	-	-	-	-	-	7.63	12.9	6.7	4.1	3.9	92	>Split of sample B0GZJ14
	B0GZH4	1/5/96	6,360	-	-	-	-	7.63	12.9	670	4.1	3.9	92	
	B0H6K0	2/16/96	4,930	-	-	-	-	7.34	12.9	501	8.4	3.62	137.4	
	B0H776	3/7/96	10,800	-	-	-	-	7.28	12.1	903	9.03	2.64	138.2	
	B0H8N8	4/5/96	11,800	-	-	-	-	7.18	12.3	1112	9.8	4.71	-558.4	
	B0H0W9	5/10/96	19,100	-	-	-	-	7.28	12.7	1575	10.2	4.56	106.1	
	B0H881	6/7/96	12,200	-	-	-	-	7.32	14.1	940	8	3.12	-71.7	
199-N-103A	B0GB65	7/21/95	771	28.1	5.1	13.1	0.48 U	-	-	-	-	-	-	
	B0GFV0	9/12/95	7.95	26.5	5.29	12.6	0.48 U	-	-	-	-	-	-	>Duplicate of B0GFT8
	B0GFV2	9/12/95	7.40	25.0	4.9 B	13	1.0 U	-	-	-	-	-	-	>Split of B0GFT8
	B0GFT8	9/12/95	8.25	27.3	5.42	12.6	0.48 U	-	-	-	-	-	-	>Field readings not taken, port not compatible with hookups
	B0GRR0	11/1/95	-	26.3	5.02	14.3	10.0 U	7.61	17.6	392	5.2	-	109.6	
	B0GRR6	11/1/95	-	27.1	5.33	14.1	10.0 U	7.61	17.6	392	5.2	-	109.6	>Duplicate sample of B0GRR0
	B0GRR5	11/1/95	2.17	26.0	5.12	13.6	0.5 U	7.61	17.6	392	5.2	-	109.6	>Duplicate sample of B0GRQ9
	B0GRQ9	11/1/95	2.44	25.4	5.01	13.6	0.48 U	7.61	17.6	392	5.2	-	109.6	
	B0H8P1	4/2/96	427	28.9	5.48	12.7	0.49 U	8.24	18.2	193	7.5	1.95	-633.6	>Duplicate of B0H777
	B0H777	4/2/96	442	27.9	5.22	12.7	0.49 U	8.24	18.2	193	7.5	1.95	-633.6	
	B0H778	4/2/96	-	28.7	5.03	12	0.1	8.24	18.2	193	7.5	1.95	-633.6	
	B0H8P2	4/2/96	-	27.8	5.03	12	0.2	8.24	18.2	193	7.5	1.95	-633.6	>Duplicate of B0H778
	B0HG83	6/3/96	1,550	28.90	4.92 B	12	0.48 U	7.88	22.4	210	7.9	1.48	183.3	
	B0HG84	6/3/96		32.2	5.12	10.9	0.1	7.88	22.4	210	7.9	1.48	183.3	
	B0HG93	6/3/96	1,620	31.6	5.51	12.1	0.47 U	7.88	22.4	210	7.9	1.48	183.3	>Duplicate of B0HG83
	B0HG94	6/3/96	-	32.0	5.46	11	2	7.88	22.4	210	7.9	1.48	183.3	>Duplicate of B0HG84

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Sample Location	Sample No.	Date Sampled	Strontium-90 (pCi/L)	Calcium (ug/L)	Magnesium (ug/L)	Sulfate (mg/L)	Total Petroleum Hydrocarbons (mg/L)	pH Measurement (pH)	Temperature (Deg C)	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Ek (mV)	COMMENTS
199-N-105A	B0GB67	7/21/95	323	26.6	4.71	16.5	-	-	-	-	-	-	-	
	B0GFT9	9/15/95	265	33.4	5.91	17.2	-	-	-	-	-	-	-	>Field readings not taken, port not compatible with hookups
	B0GP24	10/4/95	-	33.6	-	5.8	-	8.29	23.9	244	1.4	0.67	321.4	>Field screening by Rick McCain
	B0GP09	10/4/95	247	37.0	6.53	17.7	-	8.29	23.9	244	1.4	0.67	321.4	
	B0GRR1	11/1/95	255	31.4	5.39	18.4	-	8.26	16.1	330	5.6	-	113.7	
	B0GRR2	11/1/95	-	31.8	5.43	18	-	8.26	16.1	330	5.6	-	113.7	
	B0GYW1	12/4/95	247	-	-	-	-	8.12	13.6	210	7.2	0.39	291	
	B0GYW2	12/4/95	-	31.8	5.63	18.6	-	8.12	13.6	210	7.2	0.39	291	
	B0GZ117	1/4/96	305	30.4	5.35	19.9	-	8.32	14.5	186	7.6	0.09	163.2	
	B0GZ118	1/4/96	-	30.2	5.24	19.7	-	8.32	14.5	186	7.6	0.09	163.2	
	B0116K4	2/13/96	-	30.4	5.44	19.5	-	7.08	16.3	275	7	1.06	198.5	
	B0116L5	2/13/96	373	-	-	-	-	7.08	16.3	275	7	1.06	198.5	Split of sample B0116K3
	B0116K3	2/13/96	315	31.0	5.46	17.4	-	7.08	16.3	275	7	1.06	198.5	
	B0H779	3/6/96	635	32.2	5.46	23	-	8.11	19.2	339	7.48	0.42	113.4	
	B0H780	3/6/96	-	29.7	5.08	20.6	-	8.11	19.2	339	7.48	0.42	113.4	
	B0H8N9	4/2/96	495	31.7	5.6	22.1	-	8.33	18.1	214	8.3	1.01	631.3	
	B0H8P0	4/2/96	-	31.8	5.28	20.7	-	8.33	18.1	214	8.3	1.01	631.3	
	B0HDX2	5/6/96	574	31.0	5.4300003	19.4	-	8.37	19.1	223	8.8	1.88	349.9	
	B0HDX3	5/6/96	-	30.8	5.27	20.9	-	8.37	19.1	223	8.8	1.88	349.9	
	B0HG85	6/3/96	706	27.9	4.77 B	22.7	-	8.19	22.1	248	6.2	1.02	236.5	
	B0HG86	6/3/96	-	34.9	6.12	21.2	-	8.19	22.1	248	6.2	1.02	236.5	
199-N-106A	B0GKZ4	9/26/95	5,890	74.5	1.05 B	18.9	0.49 U	-	-	-	-	-	-	
	B0GP25	10/4/95	-	28.6	-	-	-	8.40	21.4	211	1.4	0.42	353.8	>Field screening by Rick McCain
	B0GP15	10/4/95	4,070	28.0	5	19	-	8.40	21.4	211	1.4	0.42	353.8	>Split sample of B0GP10
	B0GP26	10/4/95	-	29.2	4.8	-	-	8.40	21.4	211	1.4	0.42	353.8	>Duplicate of sample B0GP25, Field screening by Rick McCain
	B0GP11	10/4/95	3,640	30.8	5.8	18.8	-	8.40	21.4	211	1.4	0.42	353.8	>Duplicate sample of B0GP10
	B0GP10	10/4/95	3,660	31.3	5.87	19.2	-	8.40	21.4	211	1.4	0.42	353.8	>Offsite lab analysis of ions
	B0GRR4	11/1/95	-	29.4	5.31	20.3	-	8.11	17.5	736	5.2	-	43.8	
	B0GRR3	11/1/95	3,570	-	-	-	-	8.11	17.5	736	5.2	-	43.8	
	B0GYW3	12/4/95	3,040	-	-	-	-	8.28	15.5	219	6.9	0.4	265.8	
	B0GYW4	12/4/95	-	30.8	5.8	20.3	-	8.28	15.5	219	6.9	0.4	265.8	
	B0GZ119	1/4/96	3,270	-	-	-	-	8.37	12.0	216	3.8	0.84	114.1	
	B0H6K6	2/13/96	-	29.70	5.33	20.4	-	8.20	15.3	246	7	0.76	202	
	B0H6K5	2/13/96	3,180	-	-	-	-	8.20	15.3	246	7	0.76	202	

2080-2442196

N Springs Performance Monitoring
Analytical Results for Monitoring and Extraction Wells

Sample Location	Sample No.	Date Sampled	Strontium-90 (pCi/L)	Calcium (ug/L)	Magnesium (ug/L)	Sulfate (mg/L)	Total Petroleum Hydrocarbons (mg/L)	pH Measurement (pH)	Temperature (Deg C)	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Eh (mV)	COMMENTS
199-N-106A (Cont'd)	B0H781	4/2/96	3,220	-	-	-	-	8.35	17.2	212	5	2.28	-280.6	
	B0H782	4/2/96	-	29.70	5.14	20.3	-	8.35	17.2	212	5	2.28	-280.6	
	B0HDX4	5/6/96	3,480	-	-	-	-	7.37	17.3	204	5.7	4.98	518.2	
	B0HDX5	5/6/96	-	29.20	5.16	17.8	-	7.37	17.3	204	5.7	4.98	518.2	
	B0HGX7	6/3/96	3,250	-	-	-	-	8.12	22.4	298	6	1.68	202.4	
	B0HGX8	6/3/96	-	31.50	5.67	18	-	8.12	22.4	298	6	1.68	202.4	

U = Undetected at specified detection limit.

B The result value was less than the Required Detection Limit (RDL), but was greater than or equal to the HDL.

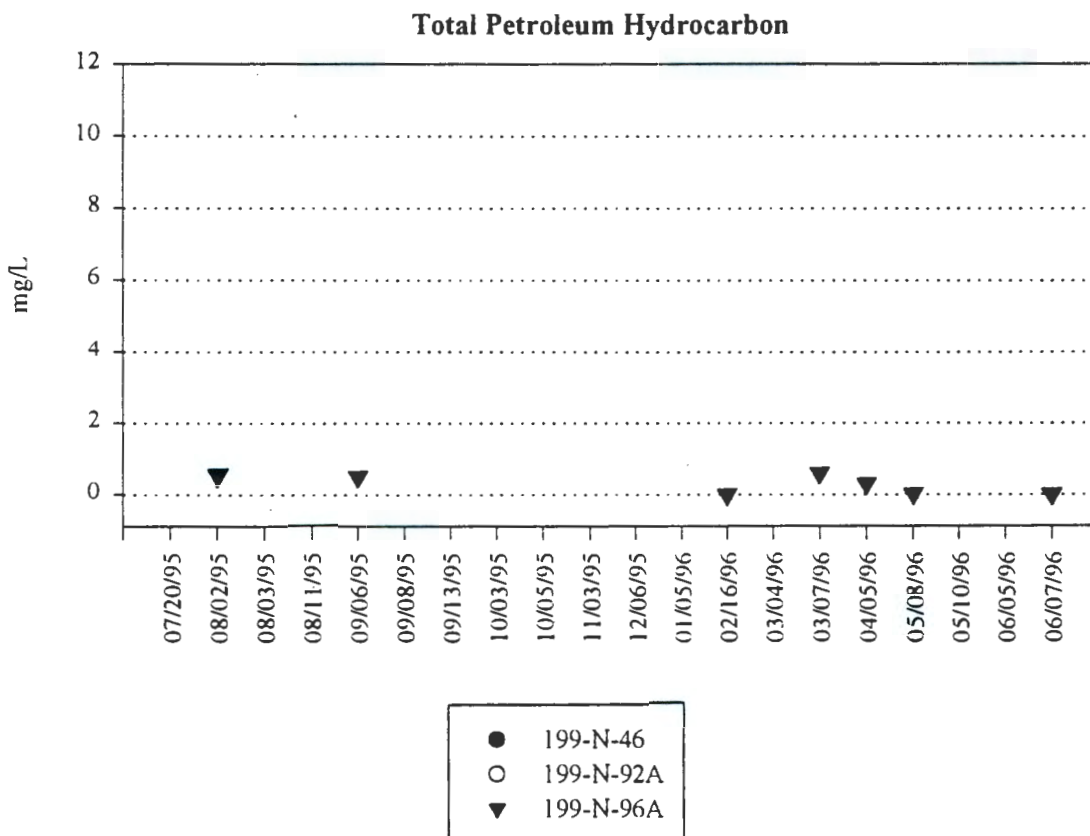
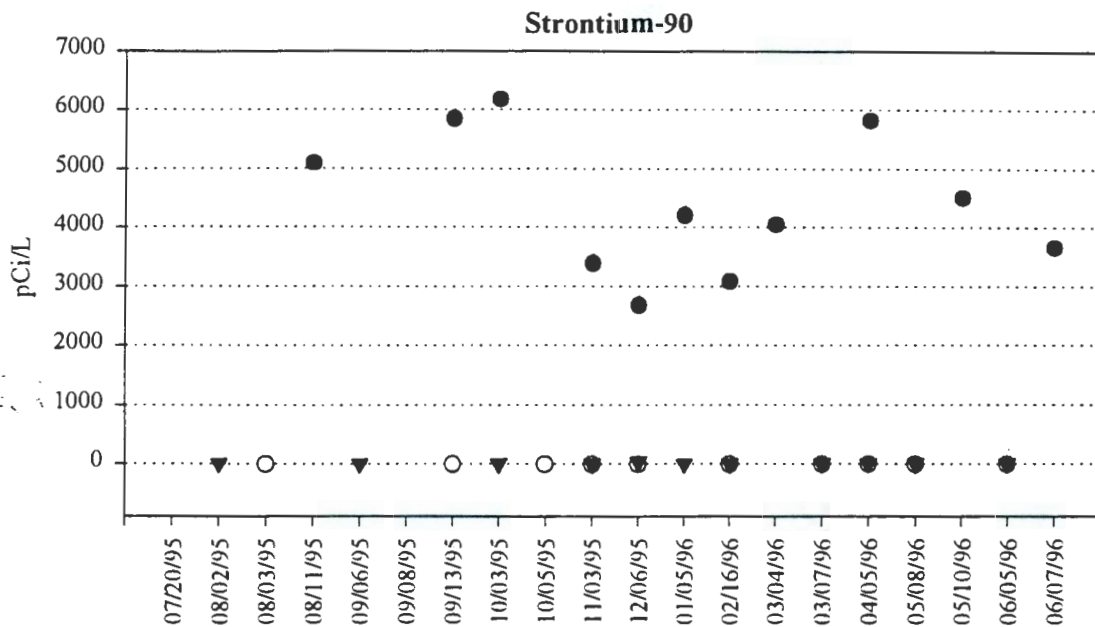
Table 3
Proposed Sampling Frequency

Type of Monitoring Location	Well/ Location	Existing Sampling Frequency	Proposed Sampling Frequency	Laboratory Analysis	On-site Analysis ^b
Extraction Wells	N-75	M	S	⁹⁰ Sr	A, B
	N-103A	M	S	⁹⁰ Sr	A, B, C
	N-105A	M	S	⁹⁰ Sr	A, B
	N-106A	M	S	⁹⁰ Sr	A, B
Monitoring Well	N-2	M	M ^d	⁹⁰ Sr	A, B
	N-3	M	M	⁹⁰ Sr	A, B, C
	N-14	M	S	⁹⁰ Sr	A, B
	N-31	M	S	⁹⁰ Sr	A
	N-46	M	M ^d	⁹⁰ Sr	A
	N-67	M	M ^d	⁹⁰ Sr	A, B
	N-76	M	M ^d	⁹⁰ Sr	A, B
	N-92A	M	S	⁹⁰ Sr	A
	N-96A	M	S	⁹⁰ Sr	A, C
	N-99A	M	M ^d	⁹⁰ Sr	A
Seep Wells ^c	NS-1 through NS-13	Y	Y	⁹⁰ Sr	A
N/A	Influent Point	M	M	⁹⁰ Sr	A, B, C
N/A	Effluent Point	M	M	⁹⁰ Sr	A, B
^a M = monthly; Q = quarterly; S = Semi-annual at total average high and low flow Y = Annual ^b A = Field parameters (pH, Temperature, Conductivity; Oxidation reduction potential); B = Ca, Mg, SO ₄ , dissolved oxygen; C = TPH ^c September seep sampling performed by WHC ^d Sampling frequency will be adjusted to semi-annual when river stage and ⁹⁰ Sr concentrations drop.					

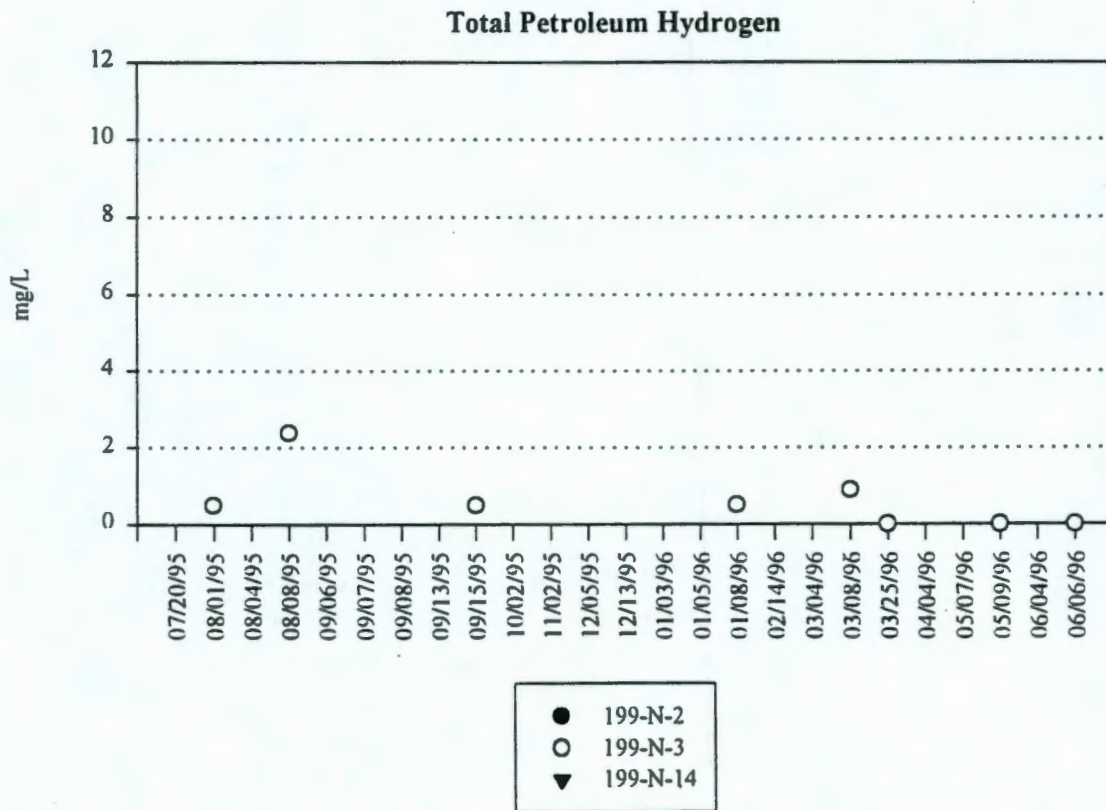
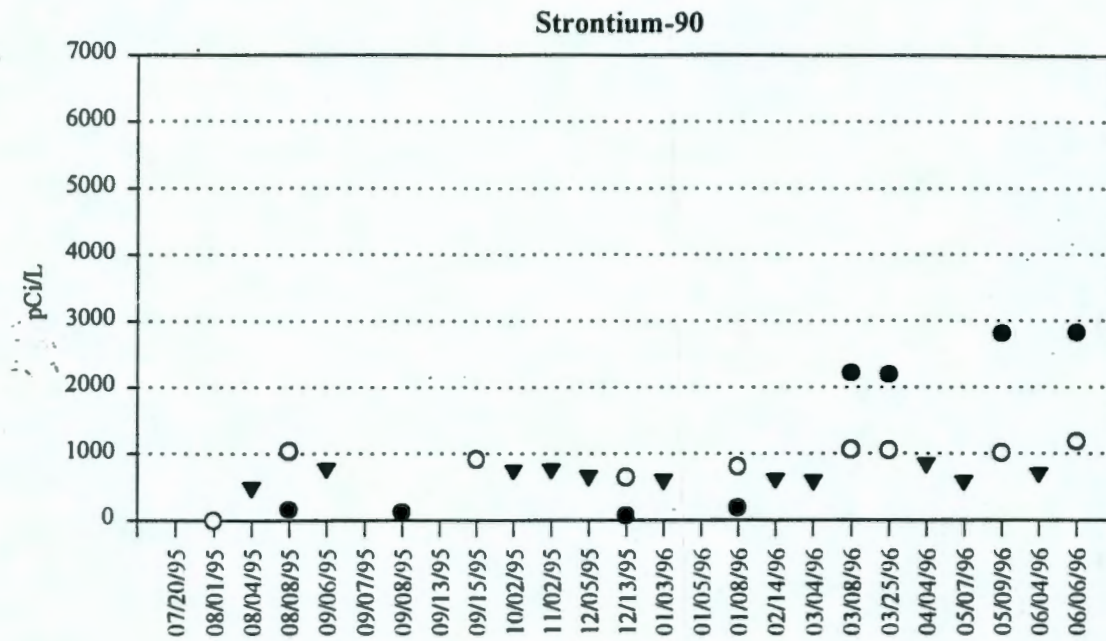
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TREND PLOTS

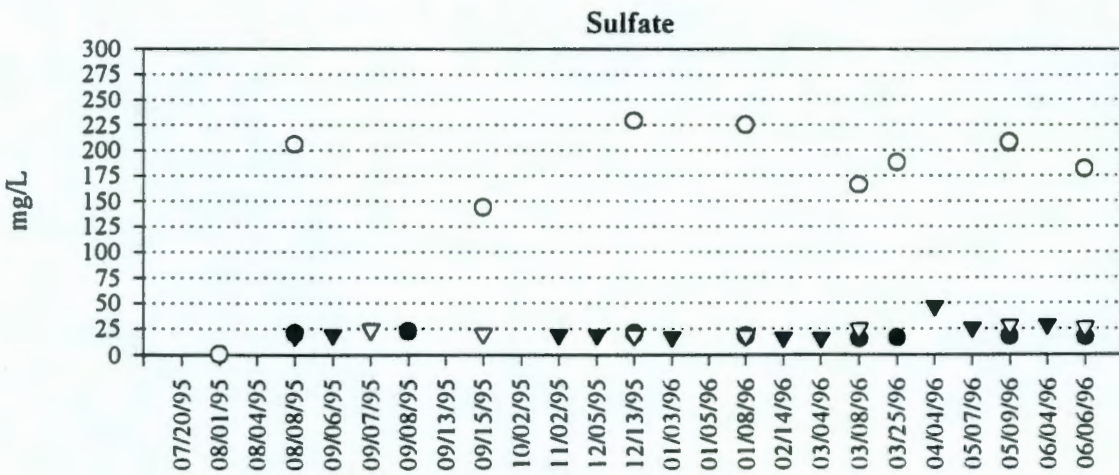
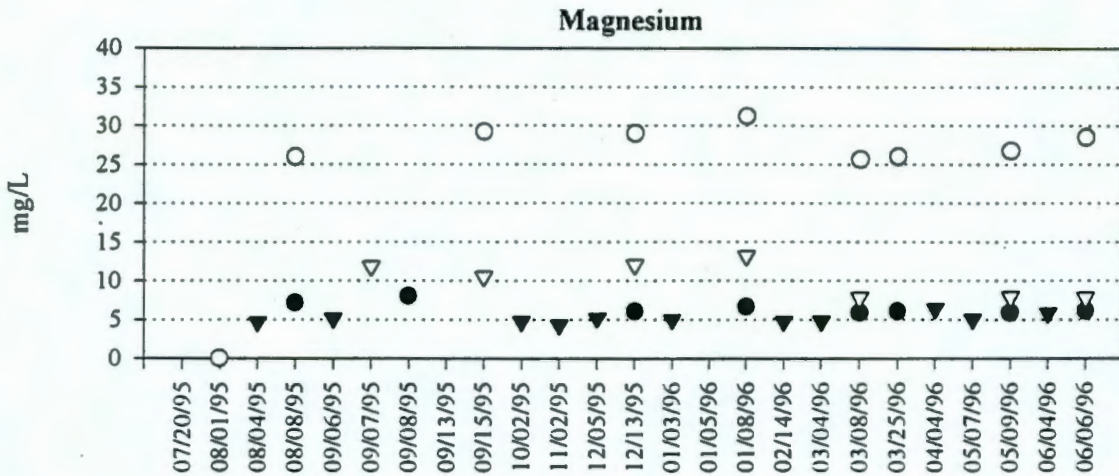
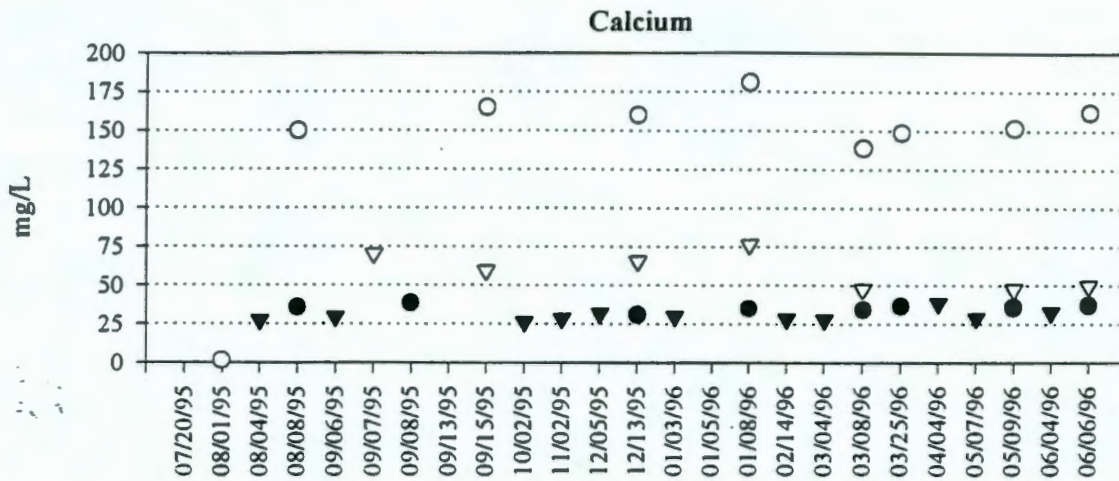
**Concentration in N Springs Wells
199-N-46, 199-N-92A, 199-N-96A**



Concentration in N Spring Wells
199-N-2, 199-N-3, 199-N-14

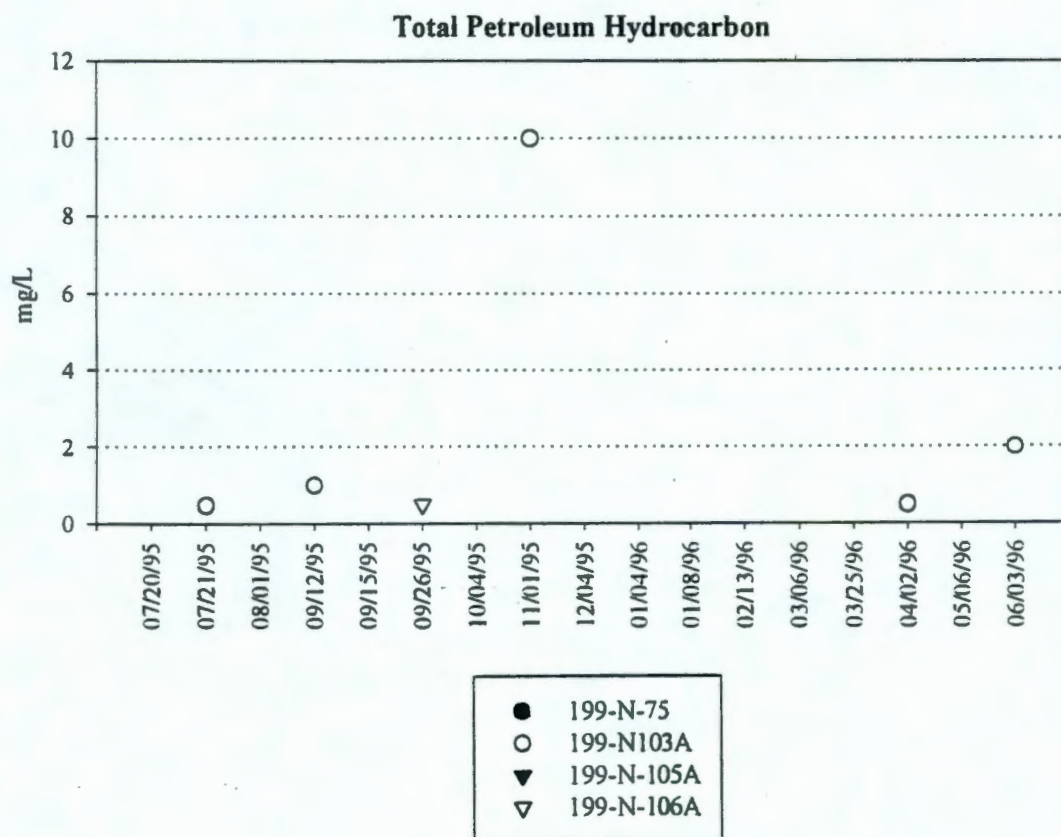
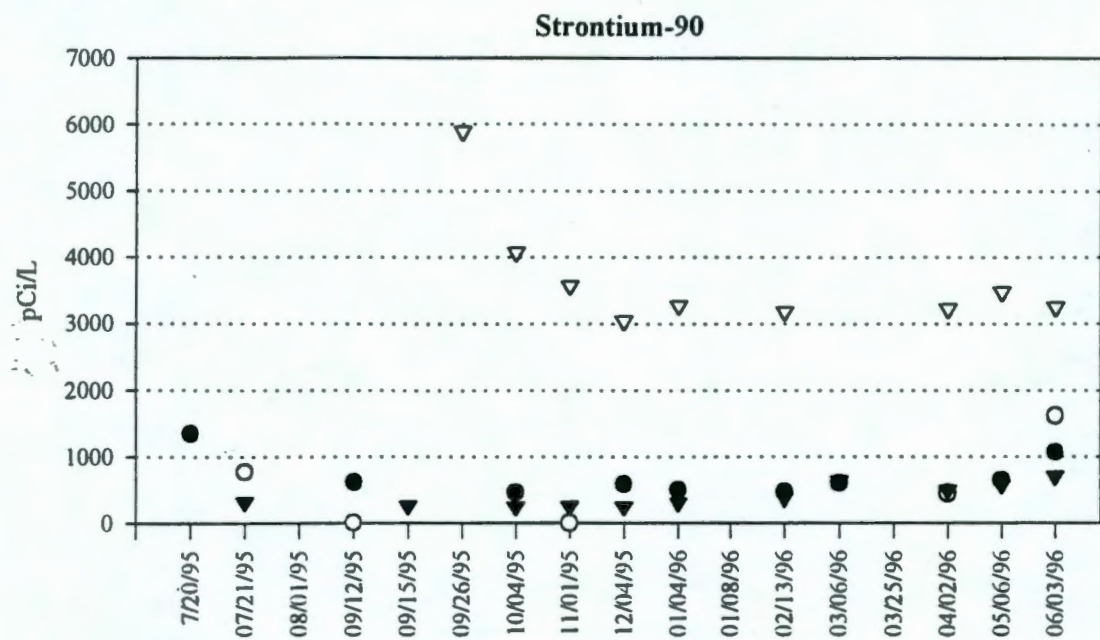


Concentration in N Springs Wells
199-N-2, 199-N-3, 199-N-14, 199-N-67

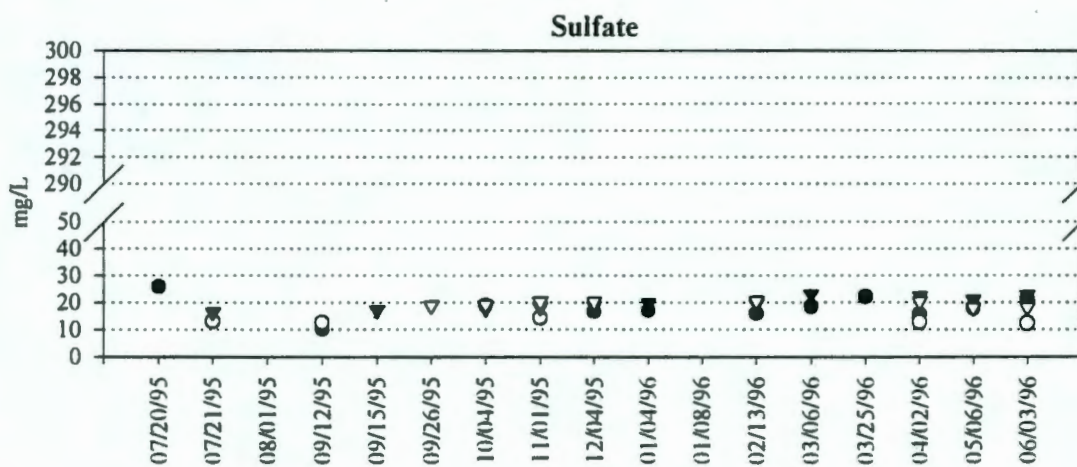
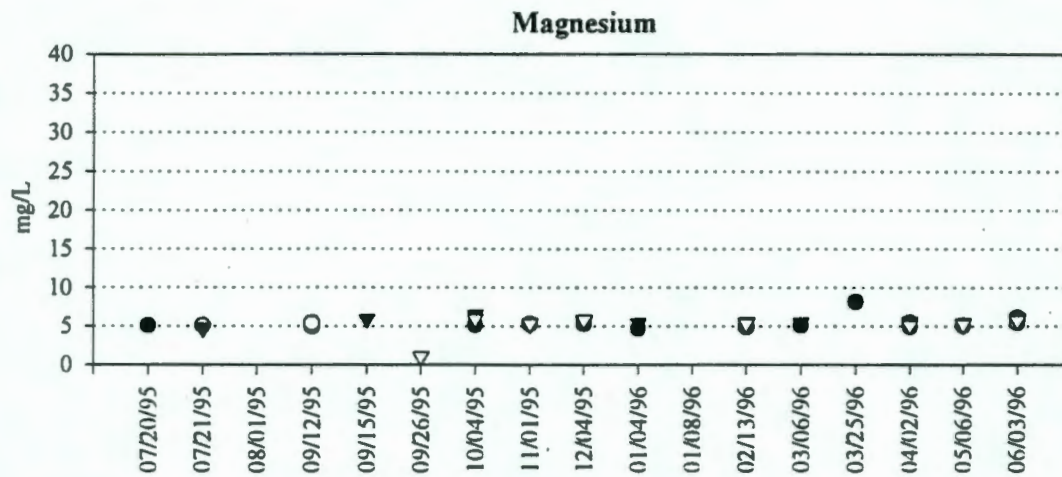
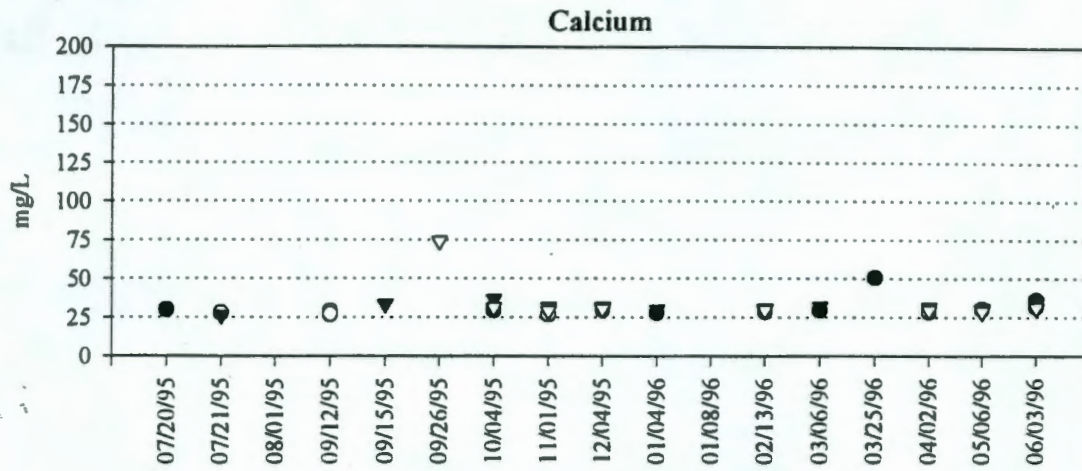


- 199-N-2
- 199-N-3
- ▼ 199-N-14
- ▽ 199-N-67

Concentration in N Spring Wells
199-N-75A, 199-N-103A, 199-N-105A, 199-N-106A



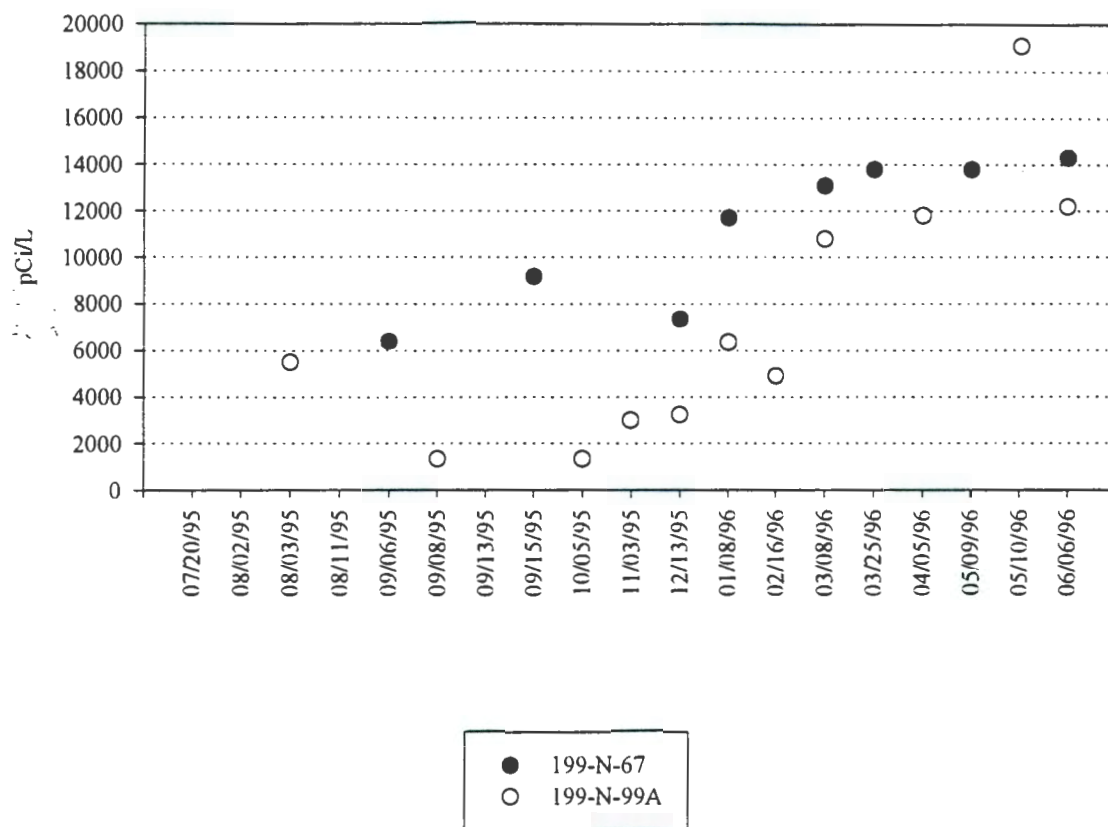
Concentration in N Spring Wells
199-N-75A, 199-N-103A, 199-N-105A, 199-N-106A



- 199-N-75
- 199-N-103
- ▼ 199-N-105
- ▽ 199-N-106

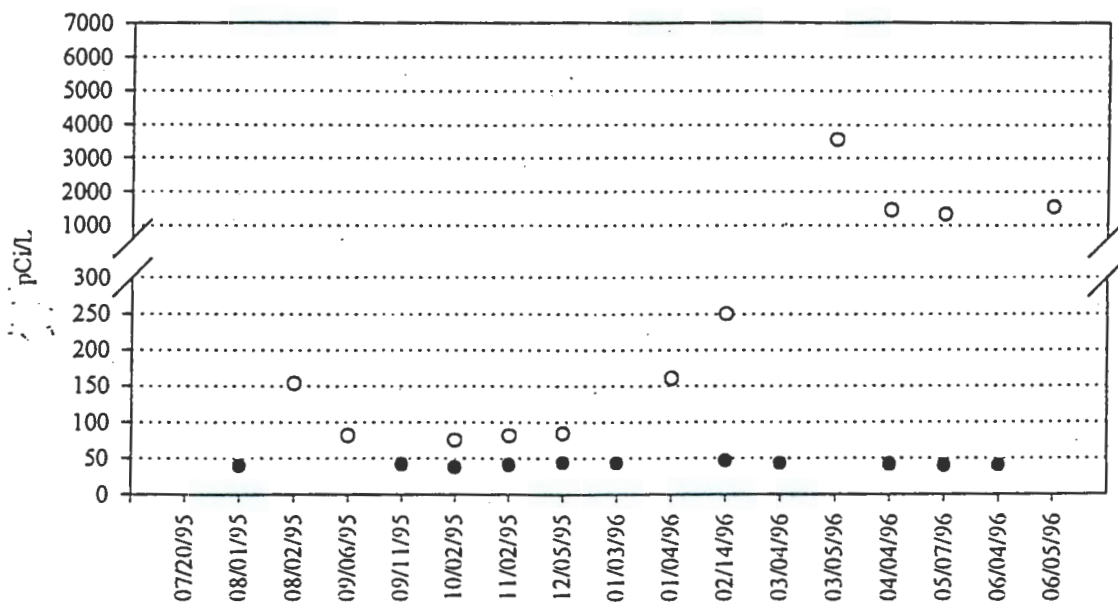
Concentration in N Springs Wells
199-N-67, 199-N-99A

Strontium-90

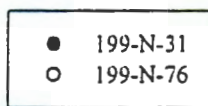


Concentration in N Springs Wells
199-N-31, 199-N-76

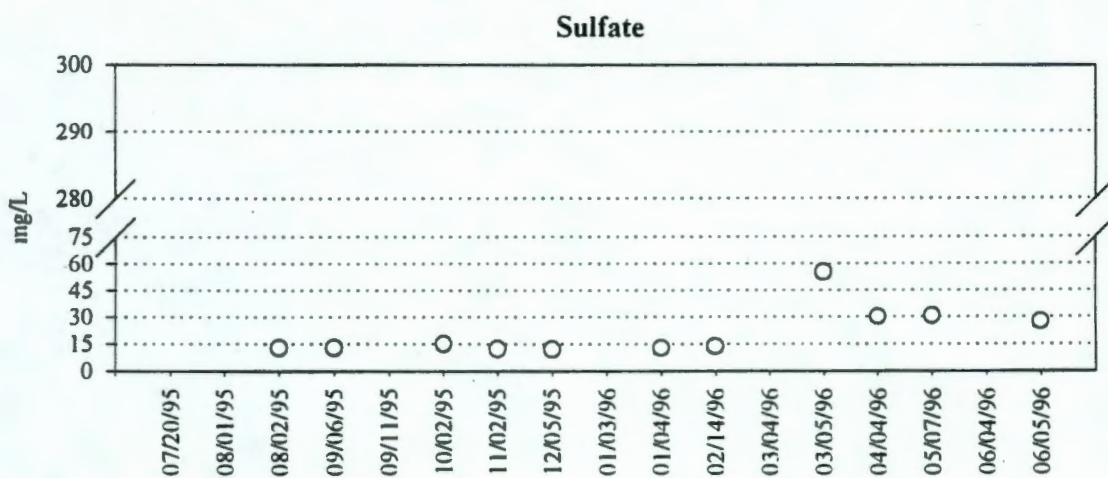
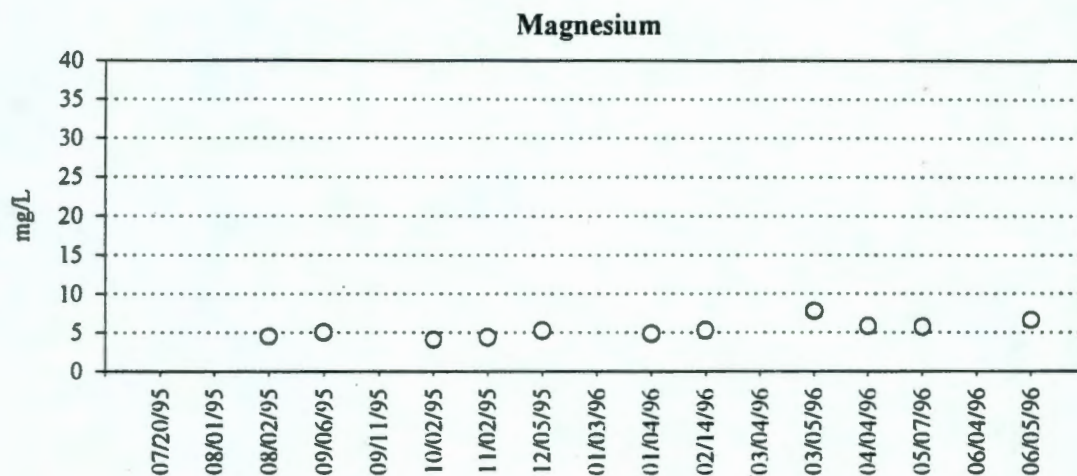
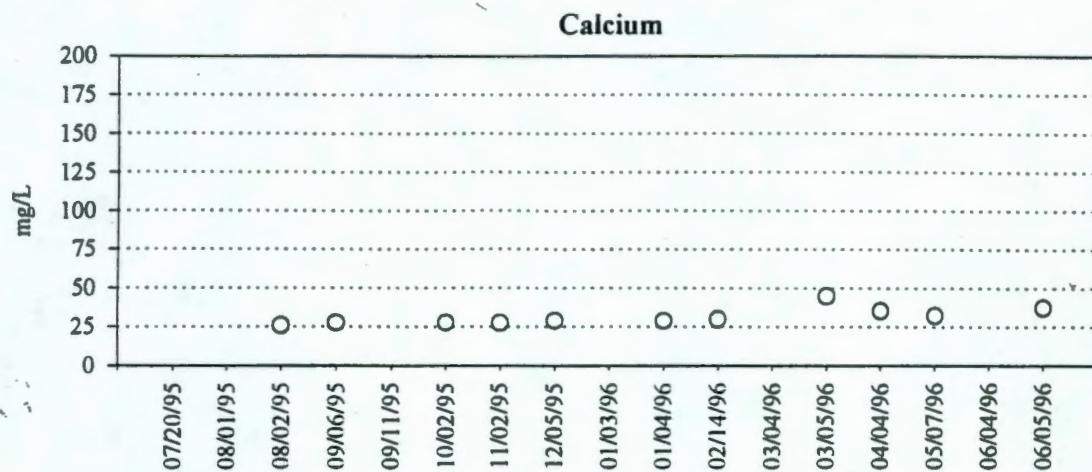
Strontium-90



No Total Petroleum Hydrocarbon Collected



Concentration in N Springs Wells 199-N-31, 199-N-76



● 199-N-31
○ 199-N-76